UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
MERANT, GUERRIER

ART UNIT	PAPER NUMBER
2117	

NOTIFICATION DATE	DELIVERY MODE
12/01/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _08/18/08_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _12 November 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Final Action

Response to Amendment

1.   Applicant's arguments/amendment, filled 08/18/08, with respect to the rejections

of claims 1-4 and 6-22 have been fully considered but they are not persuasive.

2.   Claims 2-3 and 5 have been cancelled.

3.   Claims 23-28 have been added.

Response to Arguments

4.   The Applicant argued that the prior arts of record fail to teach <u>creating transaction</u>

<u>records corresponding to detected inputs; generating an expected output signal</u>

<u>corresponding to said transaction record, and signaling an error when an agent does</u>

<u>not generate an expected output corresponding to said transaction record.</u> The

Examiner respectfully disagrees. **Gupte et al (US. 5,903,475)** teaches that *"the capture*

module is an HDL file -354 that is utilized during a system simulation 358to capture the

input and output vectors around an ASIC.   Typically, the system simulation utilizes a

behavioral HDL representation of the ASIC (e.g. creating transacting records; col. 9,

lines 8-13). During system simulation 358, the output vectors of the ASIC are captured

as "golden vectors 360. The golden vectors represent the output of teh ASIC during

system simulation (e.g. generating an expected output corresponding to said

transaction record; col. 9, lines 13-18)" Also **Gupte et al** teaches *comparing the golden*

vectors to the test vectors for verifying the representation of the ASIC (e.g. for fault or

error; col. 9, lines 35-41).

Therefore, the prior arts of record implicitly teach the limitations argued by the

Applicant. Thus, the claimed inventions are not patentably distinct over the prior

arts of record.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 4 and 22 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

As per claim 4: The medium is directed to an intangible means such as <u>an</u>

<u>infrared transmission</u> (e.g. page 34, lines 16-21).

As per claim 22: There are no physical devices for performing the functionalities

of the claim. Therefore, the claim is directed to an intangible means such as software

per se.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1, 4 and 6-28 are rejected under 35 U.S.C. 103 (a) as being unpatentable over **Gupte et al (US. 5,903,475)** and further in view of **Giedd et al (US 3,614,606)**.

As per claims 1 & 23-28, **Gupte et al** teaches a computer implemented method of verifying events generated by an agent, said method comprising:

detecting an input signal at an input of said agent *(e.g. fig. 2-9, col. 6, lines 41-64; col. 7, lines 20-35; col. 8, lines 56-67; col. 9, lines 1-57; col. 10, lines 5-10)*;

creating a transaction record corresponding to said input signal (e.g. c*ol. 9, lines 8-13)*;

generating an expected output signal, corresponding to said transaction record, based at least in part on said input signal (*col. 9, lines 13-18;* col. 6, lines 41-64; col. 7, lines 20-35; col. 8, lines 56-67; col. 9, lines 1-57; col. 10, lines 5-10);

comparing said output signal with said expected output signal to verify whether said agent produced said output signal correctly based on said input signal (e.g. col. 6, lines 53-61).

Not explicitly teaching by **Gupte et al** is signaling an error if said agent or device did not produce said output signal correctly. However, **Giedd et al** teaches a computer implemented comprising comparing an agent output signal with an expected output signal to verify whether said agent produced said output signal correctly based on said input signal and signaling an error if said agent or device did not produce said output signal correctly (e.g. abstract). Therefore, at the time the invention was made, it would

have been obvious to a person of ordinary skill in the art to implement the method of

Gupte et al with the one taught by **Giedd et al** in order to identify a user the status of

the agent being tested.

As per claims 4, 6, 8, 11 and 22: **Gupte et al** teaches an apparatus for producing

expectations to verify events or signals generated by an agent or device comprising: at

least one computer readable medium and computer readable program code stored on

said at least one computer readable medium, said computer readable program code

comprising:

program code for monitoring, detecting at least one input of said agent for a

stimulus *(e.g. fig. 2-9, col. 6, lines 41-64; col. 7, lines 20-35; col. 8, lines 56-67; col. 9,*

lines 1-57; col. 10, lines 5-10);

program code for generating an expectation of an event or output, corresponding

to said transaction record, based at least in part on said stimulus, wherein said event or

output is expected to be generated by said agent as a result of said stimulus (e.g. *col. 9,*

lines 13-18; col. 6, lines 41-64; col. 7, lines 20-35; col. 8, lines 56-67; col. 9, lines 1-57;

col. 10, lines 5-10);

program code for monitoring, detecting at least one output of said agent for said

event (e.g. col. 6, lines 53-61).

Not explicitly teaching by **Gupte et al** is signaling an error if said agent or device

did not produce said output signal correctly. However, **Giedd et al** teaches a computer

implemented comprising comparing an agent output signal with an expected output signal to verify whether said agent produced said output signal correctly based on said input signal and signaling an error if said agent or device did not produce said output signal correctly (e.g. abstract). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to implement the method of **Gupte et al** with the one taught by **Giedd et al** in order to identify a user the status of the agent being tested.

Claim 7: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 4 above, wherein said program code for monitoring said at least one input of said agent for said stimulus comprises program code for monitoring at least one input of a memory agent for said stimulus *(e.g. fig. 2-9, col. 6, lines 41-64; col. 7, lines 20-35; col. 8, lines 56-67; col. 9, lines 1-57; col. 10, lines 5-10)*, said stimulus being selected from a group consisting of an initial request to perform a memory operation, a snoop response, and a read response (e.g. col. 15, lines 3-24- Gupte et al).

Claims 9 and 10: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 8 above, wherein said correlative information comprises transaction identification (e.g. col. 11, lines 49-62- Gupte et al).

Claim 12: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 11 above, wherein said program code for gathering said stimulus from said plurality of separately

transmitted portions comprises program code for establishing a watch list, said watch

list containing an entry for each stimulus for which said separately transmitted portions

are being awaited (e.g. col. 14, lines 20-40), and wherein said program code for

monitoring said at least one input of said agent for said stimulus comprises: program

code for detecting one of said separately transmitted portions at said at least one input;

program code for searching said watch list for said stimulus for which said one of said

separately transmitted portions was being awaited and program code for adding said

one of said separately transmitted portions to said stimulus (e.g. col. 17, lines 53-67-

Gupte et al).

Claim 13: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 4 above,

wherein said program code creating a transaction record comprises program code for

creating a transaction record to contain information relating to a memory transaction

involving said agent (e.g. col. 15, lines 35-50).

Claim 14: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 13 above,

wherein said program code for producing said expectation of said event further

comprises: program code for creating an expectation record to contain information

relating to an expected event from said agent; and program code for associating said

expectation record with said transaction record (e.g. col. 18, lines 1-13- Gupte et al).

Claim 15: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 4 above, wherein said program code for producing said expectation of said event comprises program code for storing expected data associated with said expectation (e.g. col. 18, lines 1-13), said expected data being received in a plurality of separate incoming transmissions in said stimulus, said expected data being expected to be transmitted by said agent in a plurality of separate outgoing transmissions in said event (e.g. col. 18, lines 19-39).

Claim 16: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 15 above, further comprising: program code for comparing said expected data with actual data in said event (e.g. col. 6, lines 53-61- Gupte); program code for signaling an error if said expected data does not match said actual data and program code for signaling an error if said actual data is not expected (e.g. Abstract- Giedd et al).

Claim 17: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 15 above, further comprising program code for signaling an error if any of said plurality of separate outgoing transmissions is detected before all of said plurality of separate incoming transmissions have been received (e.g. Abstract- Giedd et al).

Claims 18-21: **Gupte et al** and **Giedd et al** teach an apparatus as in claim 15 above, wherein said program code for monitoring said at least one output of said agent for said event begins monitoring said at least one output for said plurality of separate

outgoing transmissions as soon as a first of said plurality of separate incoming transmissions has been received *(e.g. fig. 2-9, col. 6, lines 41-64; col. 7, lines 20-35; col. 8, lines 56-67; col. 9, lines 1-57; col. 10, lines 5-10).*

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a.   **Preston et al (US 2004/0153837 A1)** teaches A system for recording for reuse, at least one test event and at least one associated response.

b.   **Kokunishi et al (US 6,041,425)** teaches Error recovery method and apparatus in a computer system.

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.   Accordingly, **THIS ACTION IS MADE FINAL**.   See MPEP § 706.07(a).   Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action.   In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. Merant Guerrier whose telephone number is (571) 270-1066. The examiner can normally be reached Monday through Thursday from 10: 30 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis Jacques, can be reached on (571) 272-6962. Draft or Informal faxes, which will not be entered in the application, may be submitted directly to the examiner at (571) 270-2066.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cynthia Britt/
Primary Examiner, Art Unit 2117

Guerrier Merant
11/24/08